

REMARKS

Claims 1, 2 and 4-12 were reported in the Office Action as pending. Claims 1, 2 and 4-12 are rejected. Claims 1 and 8 have been amended. Claims 3, 5 and 10 are cancelled. Claims 1, 2, 4, 6-9, 11 and 12 remain.

Applicant requests reconsideration of the application in view of the following remarks.

It is asserted in the Office Action that Claims 1 and 4-7 are rejected under 35 USC 103(a) as being unpatentable over Applicant's Admitted Prior Art, in view of Kalman et al. (US 6,680,912) and Kao et al. (US 7,212,490) and Tang (US 6,195,332).

Claim 2 is rejected under 35 USC 103(a) as being unpatentable over Applicant's Admitted Prior Art, Kao et al., Kalman et al., and Tang, as applied to Claims 1 and 4-7 above, and further in view of Cisco IOS release.

Claims 8, 9, and 11-12 are rejected under 35 USC 103(a) as being unpatentable over Kalman et al. in view of Tang and Kao et al., as applied to Claims 1 and 4-7 above.

Claim 10 is rejected under 35 USC 103(a) as being unpatentable over Kalman et al., Dao and Tang as applied to Claims 8, 9 and 11-12 above, and further in view of Cisco IOS Resease as applied to claim 2 above.

In response to the above rejections, Applicant notes that the rejection set forth by the Examiner in this Action is similar to the rejection set forth in the prior Office Action. However, in order to meet the additional claim limitation added in response to the prior Office Action, namely "wherein said usage rate is an allowable transmission rate per node accordingly to a fairness algorithm," the Examiner relies upon newly cited Tang. At the specified portion of Tang, namely column 9, line 65 to column 10, line 13, Tang discloses a formula for calculating

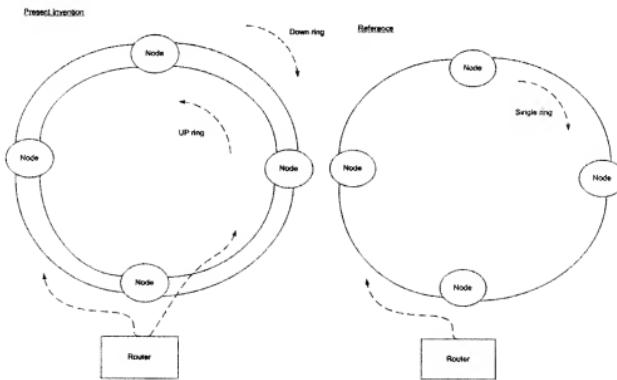
maximum upstream transmission rate with respect to a given node, but notes that other formulas could be used to regulate the data packets that would flow downstream from a given node and gives an example that preference could be given to certain tributaries on the network such as an important device or LAN, or the formula could be dynamic having a different relationship depending on the time of day, occurrence of an event, etc. See column 10, lines 15-22.

Thus, Tang teaches calculating a transmission rate per node accordingly to a formula and, arguably, the formula could be based upon a fairness algorithm. Although Applicant does not necessarily agree that Tang provides an adequate teaching with respect to a fairness algorithm, even assuming that use of a fairness algorithm is disclosed, and even though Tang is in the field of Ethernet and ring networks, it does not appear to be in any way concerned with ring selection, or ring selection algorithms. In this connection, it is acknowledged that Figure 4 illustrates an algorithm "for allowing fair access to communication network" (see column 5, lines 65-67). However, Tang's teachings are limited to a single ring network such as shown in Figure 3. Thus, Tang is completely unconcerned with a ring selection algorithm.

Further, Tang uses the formula to multiplex data packets onto the WAN network communication link (i.e., the single ring) (see column 10, lines 23-25). This is to be distinguished from Applicant's ring selection method for node-to-node packet transmission in a dual ring network.

In addition, Applicant notes that the present invention relates to a ring selection method for a dual ring network and selects a ring from two rings included in the dual ring network to transmit data, and a ring having better transmission capability, such as usage rate, is selected. However, as noted above, Tang relates to a method only for a single ring network.

The Structural difference between the present invention and Tang, wherein the down ring in a clockwise direction represents downstream and the up ring in an anticlockwise direction represents upstream, is briefly shown below.



As shown above, there are two transmission paths through which a router connected with nodes may transmit data in the present invention. The present invention checks the status of each node and selects a ring when calculating a transmission coefficient. When the ring is selected, the present invention limits packets to be transmitted through a selected ring based on the status of each node. Here, the usage rates of two rings in the dual ring network vary and thus the present invention performs a selecting ring process for data transmission based on a fairness algorithm. In the fairness algorithm for calculating the usage rate of each node, it is necessary to select a ring from two rings and parameters of each node in the dual ring network are more varied compared to the single ring network.

According to the present invention, packets are transmitted through an alternative path determined by a ring selection algorithm instead of lowering the usage rate, thereby enhancing transmission speed and making best use of the whole ring.

However, Tang merely discloses control of a transmission of a data packet based on a traffic condition on a ring-topology network, which is only applied to a single ring network. Accordingly, the main feature of Tang is to calculate a maximum transmission rate and a downstream and an upstream transmission rate of Tang do not represent the down ring and up ring of the present invention, but a communication direction between nodes in a single ring network.

Particularly, there is a ring through which a router in Tang transmits data, as shown in the above figure. Accordingly, Tang checks the status of each node by which data passes and limits packets to be transmitted to each node when calculating a transmission capability.

Also, a flow path in Tang does not represent paths formed by different rings, but a path formed by nodes through which data passes by in a ring until arriving at a destination node. Thus, determining a flow path in Tang does not represent selecting a ring in a dual ring network as in the present invention.

Therefore, the technical features of the present invention are quite different from those of Tang. Nevertheless, Applicant has amended Claims 1 and 8 to more clearly point out and distinctly claim the subject matter of the present invention.

Accordingly, reconsideration and withdrawal of the above rejections are respectively requested.

Accordingly, Applicant submits that the claims pending following entry of this amendment, namely Claims 1 and 8, and dependent Claims 2, 4, 6, 7, 9, 11 and 12 are now in condition for allowance, which early action is requested.

If there are any additional fees due in connection with the filing of this response, please charge those fees to our Deposit Account No. 02-2666. If a telephone interview would expedite the prosecution of this Application, the Examiner is invited to contact the undersigned at (310) 207-3800.